our planet
UNEP
TURNING POINT
GREEN TRANSPORT
FLYING AHEAD
PETER BAKKER
September 2009
SUSTAINABLE TRANSPORT
on the right track

UNEP

Our Planet, the magazine of the United Nations Environment Programme (UNEP)
PO Box 30552 Nairobi, Kenya
Tel: (254 20)7621 234
Fax: (254 20)7623 927
e-mail: uneppub@unep.org

To view current and past issues of this publication online, please visit
www.unep.org/ourplanet

ISSN 101 - 7394

Director of Publication : Satinder Bindra
Editor : Geoffrey Lean
Coordinator : Naomi Poulton
Assistant Coordinators : Anne-France White, Geoff Thompson
Special Contributor : Nick Nuttall
Editorial Assistant : Wambui Mungai
Distribution Manager : Manyahleshal Kahsay
Design : Amina Darani
Produced by : UNEP Division of Communications and Public Information
Printed by : Progress Press
Distributed by : Still Books

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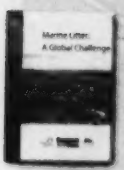
books

www.unep.org/publications

Vital Forest Graphics

A joint FAO, UNEP and UN Forum on Forests publication that translates forest-related scientific findings into a common, user-friendly language and promotes interaction between science and various stages of the policy and decision-making process. Vital Forest Graphics analyses, synthesizes and illustrates topical and important forest issues, it reviews the main ecological functions that provide support for human well-being, and it highlights proven innovative practices for forest conservation and securing livelihoods of forest-dependent communities.



Marine Litter: A Global Challenge

UNEP's initiative on Marine Litter is a framework for regional action addressing marine litter around the world including the 12 Regional Seas programmes. This publication reports on challenges of marine litter to the international community, reviews and analyses the information and data from regional assessments and action plans. The report presents a discussion, general conclusions and proposed recommendations for the control and reduction of the global problem of marine litter.

Trade and Climate Change

A collaboration with the WTO, this report examines the key linkages between trade and climate change. It presents a scientific review of climate change, its impacts and the options available for responding through mitigation and adaptation, and analyses economic aspects of the link between trade and climate change. The report provides a review of trade and climate change policies and measures at the international and national levels.

50by50
The Global Fuel Economy Initiative

UNEP, IEA, ITF, FIA Foundation

Launched in 2009, this initiative aims to dramatically improve motor vehicle efficiency globally. Its target is a worldwide improvement in average fuel economy of 50 percent by 2050. This 50by50 e-book describes the Global Fuel Economy Initiative. It discusses key issues relating to large-scale automotive efficiency, potential global impacts of improved fuel economy, policy options and the steps planned to achieve the 50by50 target.

UNEP Environmental Assessment Expo 2010 Shanghai, China

This assessment reviews the effectiveness of environmental measures related to preparations for Expo 2010, which in promoting the green expo concept, is themed 'Better city, better life'. It highlights several accomplishments including Shanghai's green transport vision, its off-shore wind farms and China's largest building-integrated solar power PV plant. The report also assesses, in general, measures being undertaken by Shanghai to revamp the overall infrastructure of the city.

2009 Climate Change Science Compendium

Evidence on climate change is mounting and the need for action is urgent. As pressures build for an internationally agreed response, keeping pace with the speed of research advances and developments in climate change science remains a vital challenge. This groundbreaking report is a compilation of new scientific findings, important observations, developments, and innovations which offer insights into various aspects of Earth Systems. The focus of the Compendium is on the biophysical evidence of climate change and its implications.

Vital GEO Graphics

This e-book and CD-ROM is based on Global Environment Outlook: environment for development (GEO-4), the fourth issue of the GEO reporting series. It utilizes graphics from the GEO-4 assessment report to illustrate the scientific findings that underpin and link UNEP's six cross-cutting thematic priorities: climate change, disasters and conflicts, ecosystem management, environmental governance, harmful substances and hazardous waste, resource efficiency and sustainable consumption and production.

reflections

ACHIM STEINER

UN Under-Secretary-General and Executive Director, UNEP

Mobility is rapidly becoming one of the greatest challenges facing developed and developing countries alike. Vehicles account for 40 per cent of greenhouse gas emissions. There are also rising concerns about their impact on the quality of urban life, including social inequities, and about the effects of their pollution on health and buildings.

Billions of hours are being lost in congestion, with commensurate financial losses for economies businesses and individuals. According to the Texas Transportation Institute, for example, congestion in United States in 2007 cost close to $90 billion a year, due partly to four billion hours — and 11 billion litres of fuel — lost in travel delays.

We are on the road to nowhere if existing policies and economic models prevail with their over emphasis on private cars and on shifting shipments of goods to the roads. The world's vehicle fleet is projected to triple from less than one billion to 2.6 billion cars and light trucks by 2050. Developing economies will account for some 80 per cent of the increase. Greenhouse gas emissions are conservatively expected to double: especially when it is considered that roughly a third of an average vehicle's life-time emissions are released during its manufacture. And increasing areas of productive land will end up under asphalt.

A new UNEP strategic paper estimates that, if all these projected 2.6 billion vehicles were subcompact cars, their required surface area alone — excluding any roadway or parking spaces — would cover about 10,500 square kilometres, equivalent to the entire surface of Lebanon. If they were comparable to the average American compact sedan, they would cover the entire surface of Djibouti and weigh more than ten billion tonnes.

Fortunately there is no gridlock in inspiring Green Economy ideas; but we need to embrace and accelerate them with creative public policies, including transformative market signals. Earlier this year, UNEP launched the 50by50 Global Fuel Economy Initiative, in collaboration with the International Energy Agency, the International Transport Forum and the FIA Foundation This is essentially a road map on how six billion barrels of oil and two gigatonnes of CO_2 — equivalent to half the total current annual emissions of the EU — can be saved each year through an ambitious world wide programme in line with the recommendations of the Intergovernmental Panel on Climate Change.

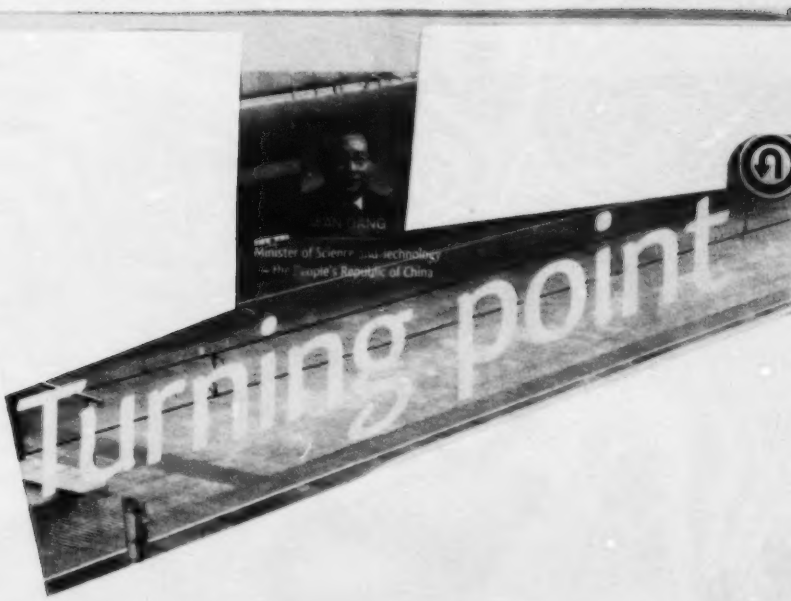
Among the greatest challenges is demonstrating real and credible alternatives to the simplistic growth of private transport, while bringing some transparency to its economics. Countries and cities worldwide heavily subsidise highway infrastructure, parking, fuel, and other commodities. These subsidies — and the lack of real market pricing on vehicle-related goods — distort decisions in favour of using cars, vans and lorries.

UNEP is demonstrating alternatives in Guatemala City, Guatemala; Concepción City, Chile; Cartagena, Colombia; Dar-es-Salaam, Tanzania; and Jakarta, Indonesia in partnerships with the Network for Environmentally Sustainable Transport in Latin America and the Caribbean and the Institute for Transport Development and Policy, backed by funding from the Global Environment Facility.

The Concepción system, for example, includes plans to build four roadway corridors with 50 kilometres of exclusive bus way and three stations to integrate different modes of transport into the City's bus system. It also envisages a bus management centre, a centralised control system for railway traffic, improving the infrastructure of urban trains, and constructing 21.4 kilometres of bike lanes.

Funding is always a challenge. But a reformed Clean Development Mechanism (CDM), under the UN climate convention arrangements, could be a big boost. One CDM proposal is looking at introducing large numbers of electric scooters and three-wheelers to replace conventional ones in Indian cities. Another envisages modern fleet-control telecommunications systems to streamline bus movements. In Chongqing, China. Mass transit cable cars linking to the metro system are being planned for hilly areas of the city of Medellin, Colombia. And there are more fascinating and imaginative plans in the pipeline.

In just a few short weeks, representatives of more than 190 governments will gather in Copenhagen for the crucial climate convention meeting. If they can get into gear to propel the world to a low-carbon future, societies may also finally embark on a journey to more sustainable transport.


Minister of Science and Technology
of the People's Republic of China
Turning point

Basic, as it is, to production and human life, energy is also a major factor influencing atmospheric changes — and humanity must develop and use it in a rational way if it is to live in harmony with nature. If we are successfully to tackle global climate change and meet increasing energy demand, we need to develop clean energy, raise energy efficiency, conserve energy and reduce emissions. Our efforts today will not just make an immediate difference, but shape the future of humankind.

Innovating and disseminating energy-efficient technologies is high on the agenda of the Chinese government, as are developing and using clean energy. China has made vigorous efforts to explore and promote new energy, energy-efficient lighting and clean energy vehicles. Since the beginning of the 21st century, it has systematically initiated a series of major new energy research and development (R&D) projects including on electric vehicles (EVs), light-emitting diode (LED) lighting, wind and solar power, the use of clean coal, and high-temperature gas-cooled reactors.

China's automobile industry has boomed since 2001 when cars began to be acquired by households on a large scale. The Ministry of Science and Technology has launched a special R&D project on EVs to ensure energy security, protect the environment, and stimulate innovation in the auto industry. It focuses on three types of new vehicles — hybrid, battery electric and fuel cell — and plans to develop the key technologies of battery, motor and electronic control systems. Since 2004, new energy vehicles have begun being demonstrated commercially in eight Chinese cities. At the 2008 Beijing Olympic Games, 600 EVs of different types achieved zero-emission transport in Olympic venues, and low emissions in surrounding areas. Zero-emission vehicles driven by electricity and fuel cells will be demonstrated at the 2010 Shanghai World Expo, and the use of hybrid vehicles will be extended in surrounding regions.

The government's Outline of National Medium and Long-term Program on Scientific and Technological Development (2006–2020) — which aims to further innovation in energy — stresses that: developing solar, wind, nuclear and biomass energy for a diversified Chinese energy mix is of great significance; developing clean coal technology and coal bed methane to reduce pollution is vital; and cutting energy use and emissions — mainly through introducing advanced technologies in construction, transport and industry — is important.

As a result of these endeavours, China's new energy industry has accomplished much. By 2008, it ranked fourth in the world for installed wind power capacity, at 12,170 MW. Its share of the global solar cell market exceeded 30 per cent in 2007 with a production capacity of 2,900 MW and output of 1,088 MW. Efforts to develop and apply biomass energy enabled China to use more than 12 billion cubic metres of biogas a year.

The Government has decided that bolstering scientific and technological advances in new energy and developing the new energy industry are part of China's major measures to combat the world financial crisis and restructure industry. So it has launched demonstration projects in energy conservation and commercializing new energy.

One — called "1,000+ Green Vehicles in each City" — promotes large-scale commercialization of new energy vehicles in the public transport systems making hybrid, electric and fuel cell buses and taxis available, initially in 13 cities. By 2012, over 60,000 clean buses and taxis are expected to be running in China.

Another project — "10,000+ high efficient Lamps in each City" — aims to introduce LED technology to public lighting systems, beginning with 21 cities. It will equip the country with 6 million functional and decorative LED lamps within three years, reducing energy consumption by more than 60 per cent.

Similarly, the "Golden Sun" project endeavours to increase China's installed solar photovoltaic capacity by 2,500 MW by 2015, and to build some 50 MW solar thermal power stations by 2020.

The Government also pays great attention to the new developments in energy science and technology (S&T) and has committed to more R&D of technologies related to integrated gasification combined circle; CO_2 capture, storage and utilization; hydrogen fuel cells; solar thermal power generation; bio-energy, etc.

"We are now at a turning point — moving from the fossil fuel age towards renewable and clean energy. We are also at a juncture — envolving from industrial civilization towards ecological civilization."

In an era of globalization, no one country can make socio-economic or S&T progress without extensive international cooperation and exchanges. The fight against global climate change also entails intensified international partnerships. China highly values international collaboration in S&T and, in recent years, has actively taken part in the International Thermonuclear Experimental Reactor Program, Generation IV International Forum, Carbon Sequestration Leadership Forum, International Partnership for the Hydrogen Economy and other international energy initiatives. The Ministry of Science and Technology also initiated the International Science and Technology Cooperation Program on New and Renewable Energy in 2007. China stands willing and ready to pool global S&T resources and carry out wider and deeper international cooperation through joint R&D in cutting-edge domains.

Over the history of industrial development, the major fuel has evolved from coal to oil to natural gas, going from solid to liquid to gas, following a law of "decreased carbon and increased hydrogen". Innovations in power equipment follow a technology roadmap of "higher energy efficiency and lower emissions". Each technological evolution in energy generates tremendous economic returns, transforms industrial structures, and improves people's lives

We are now at a turning point — moving from the fossil fuel age towards renewable and clean energy. We are also at a juncture — envolving from industrial civilization towards ecological civilization. A new round of S&T innovation in energy is on the way. We need to join hands and work hard. Building on the experience and wisdom of past generations, we should do our best to develop and use all sources of energy. Only when we do so will the present generation live in a cleaner world. Only when we do so will future generations enjoy better prospects and more room for development. Only when we do so will we embrace a new era where humanity lives in perfect harmony with nature.

verbatim

International Air Transport Association's (IATA) director general and chief executive, Giovanni Bisignani, at the 2009 G8 Summit in L'Aquila, Italy

"Commercial aviation is the first global industry to commit to a carbon-neutral growth target by 2020. We have a solid track record of meeting our targets."

Transport Secretary Lord Adonis, justifying the UK Government's plan to replace short-haul domestic flights with a high-speed rail network in an interview with the Guardian on 5 August 2009

"For reasons of carbon reduction and wider environmental benefits, it is manifestly in the public interest that we systematically replace short-haul aviation with high-speed rail."

Achim Steiner, Executive Director of UNEP, referring to the Global Trends in Sustainable Energy report released in June 2009

Aimee Gauthier of Access Africa commenting on the importance of broadening the transport options available to South African women

"Poverty complicates mobility and lack of transport options complicates poverty... Transport costs put a lot of financial pressure on households where financial pressures already exist."

Stef Van Dongen, Director of Favia, the Rotterdam-based environmental think tank behind the low-emissions rickshaw/tuktuk designed to replace highly-polluting auto rickshaws found in Thailand, India and other countries in Asia

"I used auto-rickshaws a lot and was astonished by the amount of smoke. By helping to create a hybrid rickshaw, we saw a huge opportunity to improve the environment and also to improve the life of the rickshaw drivers."

Energy analyst, Chris Nebler speaking at the 2009 Offshore Technology Conference in Houston, Texas on 4 May 2009

"Renewables are clearly the long-term answer, as is an all-electric infrastructure that runs on its clean power. However, it will likely take over 30 years for renewables to ramp up from a less than 2% share of primary energy today to 20% or more."

numbers

90

6

1/2

6

0.1

20,000

15

87

30

GREEN TRANSPORT

LARS BARFOED

Minister for Transport, Denmark

The Danish government has a long-term vision of making Denmark completely independent of fossil fuels. The first step has been taken, introducing a new strategy for sustainable transport, designed to 'break the curve' of emissions. Transport policy is to be underpinned by an ethos of sustainability, under which a world-class system will be developed and sustained — an enormous task, but necessary if our ambitious goal is to be achieved. Denmark's green transport policy has been formulated with the overall objective of improving mobility while reducing transport-related CO_2 emissions in a cost-effective way.

We are facing a serious challenge. We cannot ignore the fact that transport is responsible for some 25 per cent of Denmark's CO_2 emissions, a figure expected to rise in coming years. We intend to reverse this trajectory. But as we endeavour to do so, we must not lose sight of the contribution transport makes to our quality of life — connecting people, families and businesses. We all depend on a well-run, efficacious system: it is a key element of the basis on which our welfare and well-being are founded.

Green Transport Vision DK is a far-sighted, integrated plan for a green transport system, with three fundamental components: adjusting vehicle tax to greener vehicle levies; more and better public transport; and new sustainable technologies. It will bring down the rising CO_2 emissions from transport as we approach 2020.

Judicious restructuring of vehicle tax to greener vehicle levies will accelerate the development of a more energy-efficient national car fleet and the phasing-in of cleaner technologies — not least using electricity for fuel. Cars are essential to many Danes, for the smooth running of their daily lives, and they will remain important in the future. But we are now making energy-friendly cars cheaper to buy and introducing smart road pricing to motivate people to drive when the roads are at their emptiest and to consider when it might be wiser to go by bicycle or public transport. This, combined with such measures as smart traffic control, will reduce pressure on the roads. Congestion is already a problem on some stretches, with inevitable loss to the economy. There will be substantial investment in Denmark's road network where the need is greatest in coming years and this, together with green road pricing, will promote progress towards sustainable mobility.

Increased uptake of public transport is essential — we intend it to absorb most of the forecast growth in traffic — but this requires it to be seen as an attractive alternative to the car. Denmark will, therefore, significantly extend and improve its public transport, providing more trains, at more regular intervals and with shorter journey

times. This massive investment in public transport will go hand in hand with the green re-adjustment of car taxation.

The transport system must also be sufficiently geared up to implement other cleaner fuel technologies expeditiously and efficiently. The 'big picture' envisages efficient electrical cars within a few years. Hydrogen and electricity-powered cars are exempt from tax until 2012, and in the period 2012-2015 an advantageous registration fee will apply to electricity-powered cars, commensurate with what is needed to maximize their take-up.

In the long term, we envisage a major restructuring of the transport system, so that people will both make the best possible use of the cleanest available fuels and have recourse to a much more varied combination of private cars, bicycles and public transport as appropriate in a day-to-day context. If enough drivers make environmentally friendly choices both when buying and driving cars, we shall have made great strides as a society towards ceasing to be dependent on fossil fuels.

I have recently set up a Centre for Green Transport in the Danish Ministry of Transport to inject momentum into the process and start up some concrete initiatives to reduce transport-related CO_2, where warranted by economic conditions. A series of such initiatives is currently being put under way, designed to have an immediate effect and use existing means of transport more effectively.

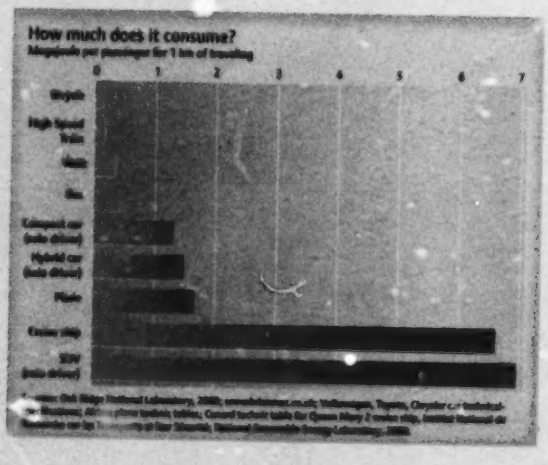
Denmark is also to act as a 'laboratory' for developing sustainable transport technologies, that they can feed into — and play a major role in — the transport system in the long term. It is important that international partners see the country as an attractive place for trialling new technologies, so pilot projects will be set up over the next few years to identify opportunities for, and obstacles to, disseminating new technologies and making them marketable. These will test the deployment of energy-efficient transport solutions, such as energy-efficient buses and sizeable publicly or privately owned fleets of vehicles.

I set great store by building partnerships with commercial organizations and municipal authorities to develop transport plans and system solutions. We need to disseminate new technologies and ensure that they are taken into everyday practical use.

But we also need to take a long-term approach to research, development and innovation if we are to achieve far greener transport without resorting to extremely costly restrictions on mobility. Not the least of our responses must be to boost research both into finding completely new instruments to deploy but also into developing existing resources to fit them to a more modern transport system.

Neither Denmark nor any other country can tackle this challenge alone. The EU-wide adoption of norms for private cars and heavy goods vehicles has significantly improved their environmental attributes, considerably exceeding our expectations. This emphasises the crucial importance of rising to the CO_2 challenge not just nationally, but through cross-border action. We must work systematically and internationally towards requirements for the energy-efficiency of vehicles, standards for electric cars, new fuel technologies and knowledge-sharing.

We still have some way to go before we can justifiably claim to have broken the curve of transport-related CO_2 emissions but, equipped with our green transport vision for Denmark, I believe that we are well on our way.



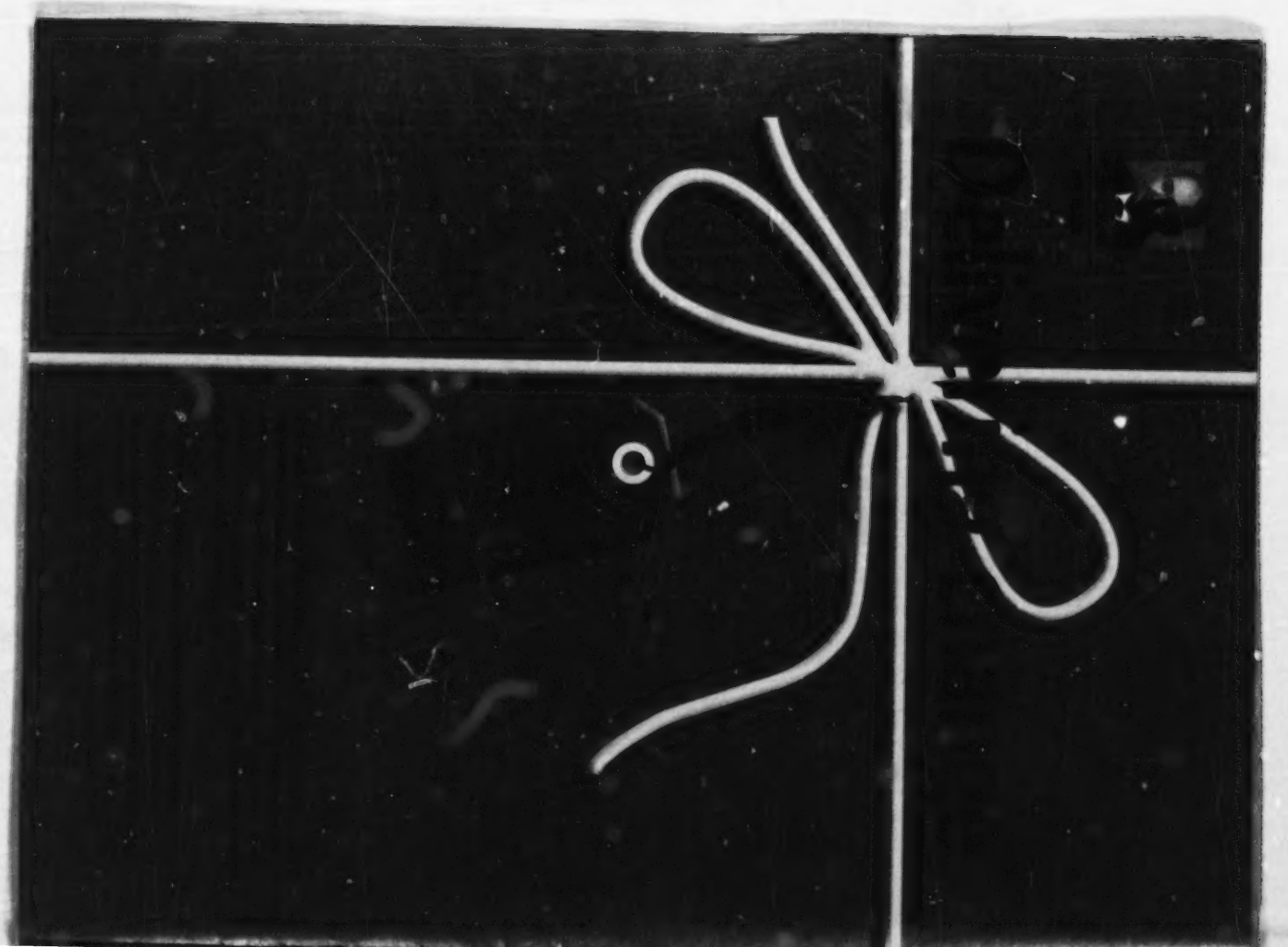
FLYING AHEAD

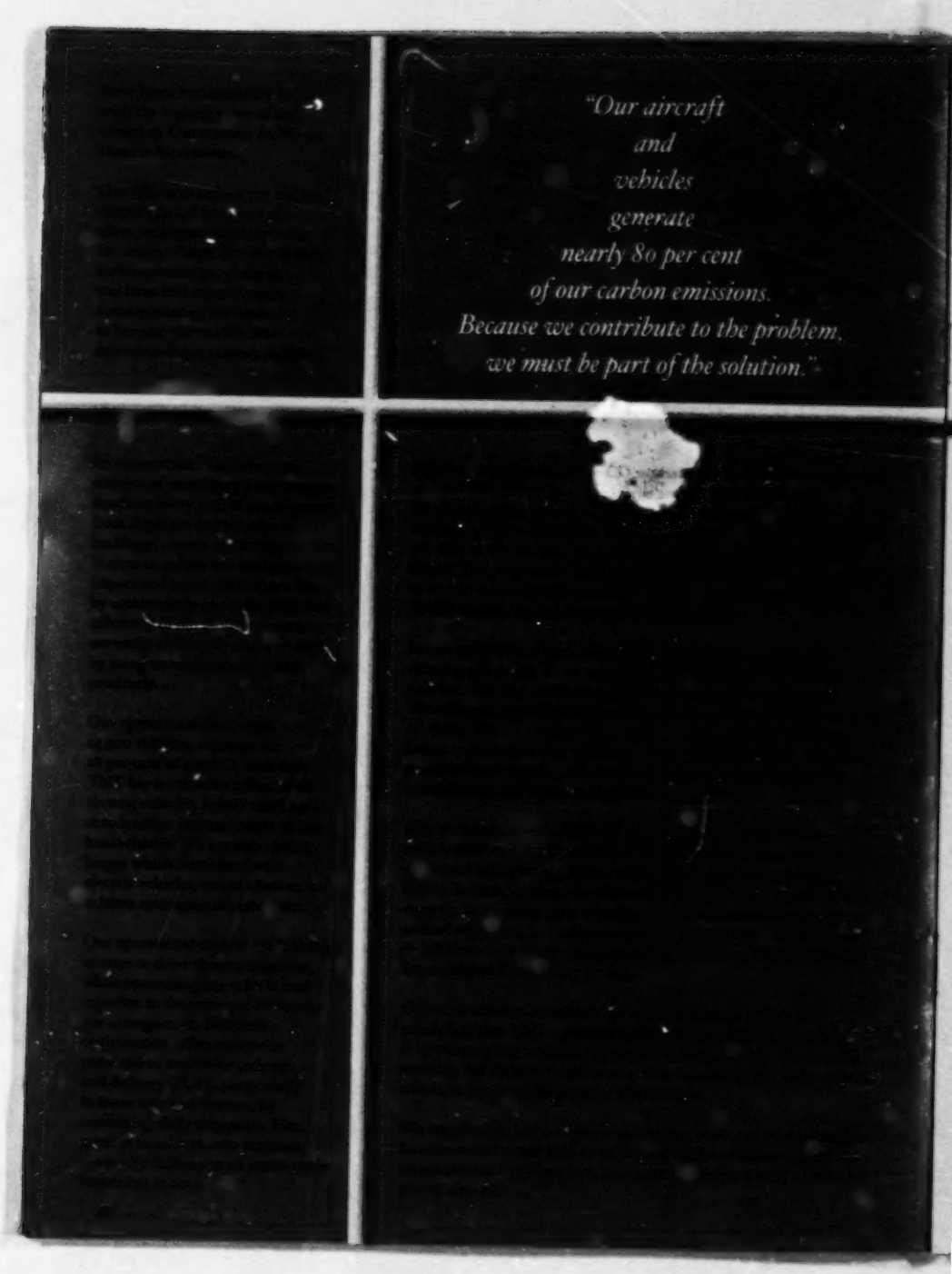
Aviation is in a unique position, as this brand new supply chain emerges, to make sure that full consideration is given to the sustainability of these new fuels. We would anticipate that considerable savings will be made in the comparative life-cycle carbon footprints of second generation fuels, but internationally agreed methodologies must be agreed on how to account for these. And we must make sure that cultivating the biomass feedstock does not compete with food crops for land or water, or cause deforestation and the loss of high-value eco-systems. Their production should also provide socio-economic benefit to the communities in which they are grown and give access to lower carbon energy for more than just aviation.

We recognise, however, that biofuels are no silver bullet. They must be accompanied by a continued focus on fuel efficiency, on reducing the carbon intensity of each passenger and cargo kilometre flown. Virgin Atlantic has set its own challenging carbon intensity target and we're confident that, despite continuing to grow our fleet and the number of passengers we carry each year, our absolute carbon footprint will peak within the next decade.

As a great believer in human innovation, I am confident that – through a combination of renewable fuels and step-changes in technology – Virgin Atlantic and our colleagues in the wider industry will be able to meet the challenge and secure aviation's future in a carbon constrained world. But a robust yet ambitious global policy framework is critical, and will be delivered only when Governments join forces in Copenhagen this December and agree a clear path forward for our sector.

For more information on the Aviation Global Deal Group, please visit www.agdgroup.org




"Our aircraft
and
vehicles
generate
nearly 80 per cent
of our carbon emissions.
Because we contribute to the problem,
we must be part of the solution."

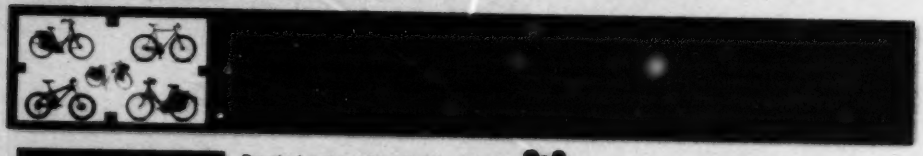
products

These shoes were made for walking

Timberland Co. released its first fully recyclable boot in July 2009. After they have been worn down, the Earthkeepers 2.0 boots are designed to be disassembled and recycled, rather than discarded. The boots can be returned to any Timberland store and 80% of the materials can be recycled or re-used. The leather is refurbished at the company's factory in the Dominican Republic, while the outsoles are recycled at a Green Rubber factory in Georgia. In addition, Earthkeepers 2.0 boots are produced using recycled PET linings, organic cotton and leathers from tanneries achieving Leather Working Group silver-rated status for industry-leading water, waste and energy management.
www.timberland.com/earthkeepers

Bamboo Bicycle

The rough and bumpy terrain that characterizes most African towns and cities has made it difficult to ride and maintain a regular bicycle; so many commuters opt for gas-guzzling polluters like cars and motorbikes. But now, African entrepreneurs have devised a durable, eco-friendly alternative for African cyclists – the bamboo bike. With frames made from sturdy bamboo stems the bike is suited to the potholed roads found throughout Africa. In addition the bamboo bikes sell for a reasonable $55, half the cost of imported Chinese bicycles. Already on sale in Ghana and Zambia, these bikes make optimum use of bamboo – an environmentally friendly and highly renewable resource.
www.zambikes.org/

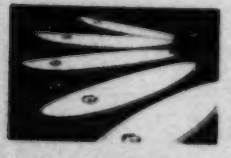


Practical and eco-friendly bike helmets

Most bike helmets are designed with an eye to practicality and safety, but now clothing company Lacoste has designed a bike helmet that checks those boxes and is also elegant and eco-friendly to boot. The helmets are made from sustainable materials like organic wool, thermoformed bio-plastic, low-density cork and soy-based foam. In addition, to create a utilitarian appearance and conceal the hard shell's interior vents, the helmets are fitted with breathable organic wool in an attractive herringbone tweed. The helmets are targeted to female urban professionals between the ages of 19 and 40, a group which research indicates is more prone to cycling injuries.
http://www.nowpublic.com/health/lacoste-helmet-concept

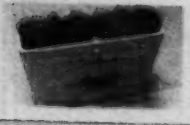
Velomobile – the bicycle car

Lying down to exercise and helping the environment is actually possible thanks to the Velobile! Velomobiles are fully enclosed, human-powered bicycles with zero emissions. Riders cycle using standard pedals to power the velomobile and depending on their fitness levels, can push it to its maximum speed of 50 km/h. The enclosed pod keeps riders dry and certain models also have extra space for belongings.
http://www.leiba.de/



Country Feeling Surfboards

Country Feeling Surfboards give surfers an opportunity to celebrate nature with surfboards made with environmentally friendly materials – soy-based and sugar-based foams; deck inlays made from hemp, organic cotton, bamboo and silk; and resin that is catalyzed by the sun. The board's shapers bring together form and function with their classic line of fishes, twin fins, single fins, four-fins, eggs, funboards, longboards, and stand up paddleboards – all kinder to the environment and engineered to bring the soul back into surfing.
http://www.countryfeelingsurfboards.com/



What?! No batteries?

Your bedroom is the last place you'd want mud. Or maybe not...The Mud Clock is an eco-friendly clock that requires no batteries, just a little dirt and water. The clock is powered by a safe chemical reaction between mud and metal electrodes, displaying the time without the need for additional power sources. You can also add your favourite plants to the pot for a decorative touch.
http://www.eartharchitecture.org/index.php?/archives/846-Mud-Clock.html

TACKLING TRAFFIC

ANNA TIBAIJUKA

Under Secretary-General of the United Nations and Executive Director of UN-HABITAT speaks to Our Planet.

With over half of humanity now living in cities and towns, how do urban areas contribute to climate change?

Urbanisation and climate change are virtually inseparable. Cities form islands of heat due to their high energy consumption and greenhouse gas (GHG) emissions, and their high density of concrete and asphalt.

Rich cities produce more greenhouse gases than poor ones as higher incomes and changing lifestyles increase consumption and energy dependence. Every day the population of the world's cities grows by almost 200,000 people, and this will increase the proportion of humanity in urban areas to 60 per cent within two decades, so the contribution of cities to climate change must be taken very seriously.

What is the impact of climate change on cities?

Three quarters of all large cities are coastal, and 14 of the world's 19 biggest ones are ports. Indeed, sixty per cent of the world's people live in coastal zones less than 60 metres above sea level.

Sea level rise, together with other climatic changes, will inevitably increase in local and inter-urban migration. We estimate that already about 30 per cent of slum dwellers are environmental refugees, putting considerable pressure on local authorities for land, housing and other basic services.

Higher temperatures and increased pollution can also be expected seriously to increase health problems – especially for the urban poor, living in overcrowded and unhygienic conditions.

How can cities work on mitigation and adaptation to climate change?

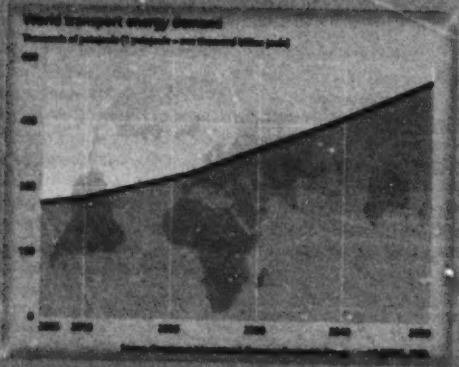
Cities offer opportunities to reduce emissions through economies of scale and large-scale urban initiatives. Their local authorities are an essential focus of intervention for change and can

and more, provide leadership and implement practical participatory programmes for urban communities. Many mayors in cities around the world are already carrying out activities to encourage energy efficiency, renewable energy, cleaner production and applying regulations to control industrial emissions.

Such good practices must be shared. Many cities have established "cities in climate change networks" sharing experiences and exchanging successful action plans. UN-HABITAT and UNEP are working together on a Cities and Climate Change Initiative, part of SUD-Net, the Sustainable Urban Development Network, to encourage inter-disciplinary approaches. However, local authorities in the developing world need further assistance in areas such as capacity building, technology transfer and technical support.

How can cities reduce emissions of greenhouse gases from urban transport?

Urban transport is the planet's fastest-growing source of GHG emissions. Rapid increases in the number of vehicles on city roads, and insufficient investment in urban transport planning and traffic management in developing countries are exacerbating air pollution and decreasing economic productivity. Low-density, sprawling cities in developed countries are even



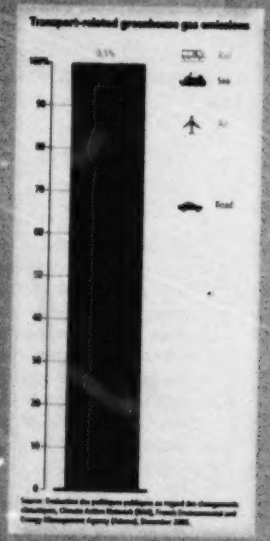
so throw down more expensive to run and service than more densely populated ones.

Reducing transport's impact is the single most cost-effective measure local governments can make towards mitigating climate change. Investment is urgently needed to replace hydrocarbon-fuelled vehicles with environmentally friendly transport. Priorities must include developing non-carbon based fuels and alternatives to the internal combustion engine through efficient solar and other systems of electrical power generation.

UN-HABITAT also promotes human settlements development strategies that better integrate land use planning, taking into account commuting distances. For example, we promote public transport and non-motorised transport as alternatives to over-reliance on private automobiles to meet future demand.

What is the future agenda for transport fuels?

Almost all rapidly growing developing country cities are moving towards a huge increase in their needs for transport and related services. The most



Source: Evaluation des politiques publiques en regard des changements climatiques, Climate Action Network (Can), French Environment and Energy Management Agency (Ademe), December 2000.

famous examples are the cities of China and India, but these are increasingly aware of the need to minimise emissions through improved transport policies.

African countries are often considered to be low greenhouse gas emitters but, before long, the continent's transport will be a major source of emissions. By 2030, Africa will cease to be a rural continent. East African cities are expanding at unprecedented rates. Nairobi is one of the fastest-growing cities in the world, with an annual growth rate of seven per cent, and already suffers from inefficient urban transport services and management, inadequate infrastructure, and high levels of air pollution.

City authorities in both the developed and developing worlds must immediately work on integrated urban planning strategies that encourage compact cities, better public transport and minimised emissions.

people

MARC ONA ESSANGUI

has battled tirelessly to block the construction of an iron ore mine in the Gabonese town of Belinga. The mine is being developed by a Chinese mining and engineering company (CMEC), in partnership with the Gabonese Government. It will be powered by a large hydroelectric dam near Gabon's highest waterfall. Despite this, Ona claims that the Gabonese government has failed to consult the local population and has not assessed the impact of the development on the environment. Through his environmental organization – Brainforest – Ona is fighting an uphill battle to protect the rich biodiversity and natural beauty of the proposed site, and in April 2009, he was awarded the Goldman Environmental Prize for his activism.

CARLOS SLIM

Mexican billionaire Carlos Slim is one of the world's richest men. On World Environment Day 2009 he launched a 100 million dollar project to protect Mexico's environment along with the Mexican Government and the World Wildlife Fund. Slim hopes the project will generate jobs whilst protecting biodiversity in Mexico's deserts, beaches and jungles. Slim has shown that protecting our environment can be achieved by individuals who choose to partner with governments and non-governmental organizations. This kind of partnership is innovative in many parts of the world, giving vision and direction to many a philanthropist, government and NGO.

APA SHERPA

The man who has climbed Mt Everest more times than any man in history is climbing it once again, this time for the sake of the mountain he loves and the environment he seeks to protect. Apa Sherpa has witnessed first hand the effect that climate change is having on the Himalayan glaciers, which are melting rapidly, leaving less and less drinking water for the millions that depend on them. By climbing the mountain for the 19th time, Sherpa has captured the world's attention and underscored the dangers facing the countries that rely on Himalayan melt water.

SYEDA RIZWANA HASAN

spearheaded a legal battle, which resulted in increased government regulation and heightened public awareness about ship breaking in Bangladesh. From 2005 to 2007 more than 250 ships, with a total weight in excess of 2.5 million tons, were broken on the shores of Bangladesh. In part as a result of Hasan's work, the Supreme Court of Bangladesh directed the closure of 36 ship breaking yards operating without environmental clearance. Hasan plans to continue her advocacy to ensure that the rulings are upheld. For her work Hasan was awarded the 2009 Goldman Environment Prize for the Asia region.

ENRIQUE PENALOSA

Economist and former mayor, Enrique Penalosa brought results to his city, Bogota. In just three years, Enrique Penalosa accomplished a great deal, including changing the way that Bogota residents travel around the city. He created a bus rapid transit system which now carries nearly two million people a day. He also widened sidewalks, rebuilt deteriorating ones and created grand public spaces that have improved the quality of life and the visual appeal of Bogota.

PRESIDENT MOHAMED NASHEED

With over one thousand islands in the Maldives and not one of them two metres above sea level it is not surprising that President Mohamed Nasheed is concerned with the problem of rising sea levels as a result of climate change. President Nasheed has consistently illustrated how climate change can infringe on people's basic human rights by destroying their livelihoods, their homes and their country. Awarded the sixth Anna Lindh Prize for his work on climate change, Nasheed continues to emphasize the devastating effects of climate change, while highlighting achievable solutions; in May this year, the Maldives joined the Climate Neutral Network led by UNEP, with a pledge to become the world's first carbon-neutral nation by switching to renewable sources of energy such as solar panels and wind turbines.

GLADYS KALEMA-ZIKUSOKA

When Ugandan veterinarian Gladys Kalema-Zikusoka graduated from the Royal Veterinary College in London she returned home to become Uganda's only wildlife vet. Having worked with mountain gorillas and local people in the Bwindi Impenetrable Forest, Kalema-Zikusoka gained enough insight, interest and passion to write a proposal to prevent further conflict between the rare mountain gorillas and humans. As a result, and despite stiff global competition for the funds, Kalema-Zikusoka was awarded £50,00 from the Whitley Fund for Nature. The gorilla project she subsequently set up with the funds offers local people better healthcare and greater knowledge of their gorilla neighbours. It also allows her native Uganda to benefit from gorilla tourism without harming the apes.

CITIES the solution

Sustainable transport is a[n] component in developing competitive cities that seek to protect the environment and health by substantially enhancing their inhabitants' quality of life.

It will ensure the competitiveness of urban areas by enabling their people to be productive, and contribute socially and economically, rather than spending hours stuck in traffic. According to one survey, around 3.3 million person-hours are lost every day to traffic jams in Mexico City, causing millions of people to spend five years of their lives in a car during their working

[...] traffic congestion is not confined to the capital: the people of Mexico's medium-sized cities have recently also been suffering exponential increases in the time they spend travelling.

It's not just a matter of lost time, serious as that is. Extensive use of motorized transport reduces, or even eliminates, time spent walking every day, contributing significantly to problems associated with obesity and being overweight: The World Health Organization, says the potential for developing such problems increases by six per cent with every extra hour spent in a vehicle daily. Air pollution causes diseases, especially in children and older people. If the current trend continues, greenhouse gas emissions from transport will rise from 170 million to 440 million tons annually by 2030.

Even more worrying, these conditions are set to worsen. The number of vehicles on Mexican roads rose 160 per cent from 8.5 million to 21.6 million between 1996 and 2006, and — if this trend continues — will reach 70 million vehicles, more than one vehicle for every two inhabitants, by 2030. The results would be

devastating for our health, our quality of life and the environment.

Strenuous efforts must be made to avoid this future. Solutions based on expanding the road network have proved to be ineffective and extremely costly. So, Mexican cities must change their transport patterns as a matter of extreme urgency. Developing a much more holistic approach that looks at urban development, the quality of public spaces, the creation of a system that would facilitate safe walking and cycling and the operation of rapid, efficient, safe and clean forms of public transport.

For competitive urban growth, streets must be built on an essentially human scale, taking various modes of transport into account. Avenues should be designed as to enhance their connectivity and shorten travelling distances, and should accommodate various forms of transport, including walking and cycling. Housing complexes should provide their occupants with all the amenities they need.

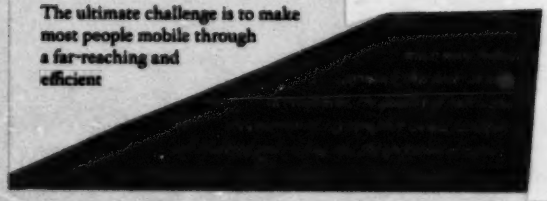
Options must be found that would enable an efficient transport system: journey times must be cut and travel made safer and more comfortable and cost-effective. One such system is bus rapid transit (BRT) which, with the use of dedicated bus lanes, can provide all the advantages and benefits of modern rail-based urban transport systems at a fraction of the cost. Most successful systems have: dedicated or priority lanes for public transport; rapid boarding and alighting; pre-payment of fares and on-board validation of tickets; modern, high capacity vehicles using clean technology; and combined transport modes and tariffs.

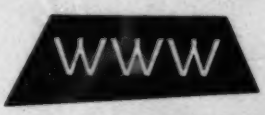
Mexico has three examples. Optibús in Ciudad de León, the first BRT line in Mexico, carries between 104,000 and 411,000 people daily on 15 km-long routes. Metrobús in Mexico City, which transports up to 450,000 people daily on 50 km of routes, cuts carbon dioxide emissions by approximately 80,000 tons per year. And Macrobús in Guadalajara, which went into operation in March 2009, saves another 23,000 tons of Co_2 a year by taking 75,000 people a day along 16 km of routes.

Successful examples can also be found in other Latin American cities like Bogota, Quito, Curitiba, Goiania and Belo Horizonte. Indeed BRT had its roots in Latin America and is now being replicated in developed county cities such as Los Angeles, Miami, Las Vegas, Madrid, Paris and Vancouver. Its benefits are demonstrated by the fact that all these cities came to the same decision in choosing their transport systems. But existing networks must be enlarged and should be implemented in cities that have yet to use it.

The ultimate challenge is to make most people mobile through a far-reaching and efficient transport system encompassing non-motorized alternatives, providing decent and efficient conditions, consuming as little energy as possible and proving competitive in terms of time-saving, comfort, safety and cost.

Jaime Lerner, the Brazilian transport expert, says: "the city is not the problem, it is the solution". A holistic approach will enable Mexican cities and their inhabitants to remain competitive, while assuring their quality of life and sustainable urban development, pl... contributing to the preservation of the planet through strategic sustainable transport.





Transport: Useful Links

This page contains links to websites from governments, international organizations, non-governmental organizations, businesses, media, and other groups from around the world to help you research issues related to transport. We have compiled these links from our own review of the vast amount of information available on the Internet to help you to find the most relevant sources for your research. **Our Planet** magazine does not, however, endorse the viewpoints of any of the groups to which we link, and we cannot guarantee the accuracy of the information posted on these sites. Rather, we hope to provide you with a broad range of opinions and perspectives.

www.unep.org

UNEP Transport Website
http://www.unep.fr/energy/transport/
UNEP's website dedicated to transport encourages a move towards sustainable mobility.

UNEP Greener Driving
http://www.greener-driving.net/
This campaign, run jointly by UNEP and several sponsors from the automotive industry, promotes sustainable mobility and explains the Greener Driving style.

Partnership for Clean Fuels and Vehicles
http://www.unep.org/pcfv
The Partnership for Clean Fuels and Vehicles (PCFV) assists developing countries to reduce vehicular air pollution through the promotion of lead-free, low-sulphur fuels and cleaner vehicle standards and technologies.

UNEP Resource Efficiency Website
http://www.unep.org/resourceefficiency/
UNEP works to promote resource efficiency and sustainable consumption and production in both developed and developing countries. The aim is to help public and private decision makers implement policies and actions for resource efficiency and sustainable consumption and production.

UNEP and Urban Issues
http://www.unep.org/urban_environment/
UNEP supports governments to address key urban dimensions including air pollution, coastal areas, waste, biodiversity, and climate change.

UNEP Share the Road Initiative
http://www.unep.org/urban_environment/NMT_Roads/index.asp
Improving the way in which roads are planned, financed, and built can help improve road safety and accessible mobility for all road users (including pedestrians and cyclists), and reduce the environmental impact of road transport.

other websites

50by50 Global Fuel Economy Initiative
www.50by50campaign.org
This campaign aims to double auto fuel efficiency worldwide.

International Transport Forum
http://www.internationaltransportforum.org/
The International Transport Forum is a global platform and meeting place for transport, logistics and mobility.

Make Cars Green
http://www.makecarsgreen.org/
The International Car Federation (FIA)'s Make Cars Green campaign aims to help reduce the impact of cars on the environment. The campaign's ten points for greener motoring encourage motorists to think green before they drive.

Car Lines
http://www.walshcarlines.com/
Car Lines, a quarterly update on vehicle emissions, climate and air quality issued by Michael Walsh, is a concise and informed rundown of the latest news in the world of transport.

Hybrid Auto Rickshaw
http://hybridtuktuk.com/
Auto-rickshaws, the primary means of transport for millions of people in Asia, cause considerable air pollution and a large amount of CO_2 emissions. Hybrid Auto Rickshaws, on the other hand, produce 40 per cent less CO_2 emissions than their regular counterparts – thus contributing to better air quality in large Asian cities. And the icing on the cake: they are cheaper to fuel, too.

Better Place
http://www.betterplace.com/
Better Place is the world's leading electric vehicle (EV) services provider, catalyzing the transition to sustainable transportation. To ensure that we can confidently drive an EV anytime, anywhere, Better Place is developing and deploying EV driver services, systems and infrastructure.

Ecodrive
http://www.ecodrive.org
This campaign encourages people to drive in a safer, more energy-efficient way.

Sustainable Urban Transport Project

The Sustainable Urban Transport Project (SUTP) Asia aims to help developing world cities achieve their sustainable transport goals, through the dissemination of information about international experience and targeted work with particular cities. The initiative is a partnership between the German Technical Cooperation (GTZ), the Bangkok Metropolitan Administration (BMA), CITYNET and the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP).

United Nations Economic Commission for Europe

The Transport Division website of UNECE contains information on upcoming meetings, surveys and new publications and brochures.

World Health Organization: Urban Environment

This website serves as a global directory of urban environment sites, including links to sites by UNEP, WHO (Healthy Cities Network) and other UN agencies (UN-HABITAT), as well as development, research, academic and civil society sites.

Traffic jam

India's capital is vying for the top rank in the league of the world's most polluted cities, certainly for a metropolis of nearly 14 million people. The World Health Organisation has rated New Delhi the fourth worst on the planet for suspended particulate matter and respiratory diseases. Vehicles, many running on diesel, are largely responsible. With some 1.5 million cars — as many as Mumbai, Chennai and Kolkata put together — and more than twice as many two-wheelers and auto rickshaws, its air is acrid.

Conscious that this would come under scrutiny during next year's Commonwealth Games, the Delhi government ambitiously attempted to introduce a Latin American-style Bus Rapid Transit System (BRTS) last April, as part of a multi-pronged initiative to improve city transport, which also will include a separate light rail system. It was tutored by transport experts from the prestigious Indian Institute of Technology (IIT) and experimented with a full-fledged BRTS on a 5.8 km-long route, with a reserved bus lane in the centre of the road and another set aside for cyclists.

The IIT experts were taking their cue from Curitiba in Brazil and Bogota in Colombia, where a BRTS has worked wonders and is held up as an exemplar for the world. Enrique Penaloza, the former Mayor of Bogota, visited Delhi a few years ago and strongly advocated such a system for the 60 per cent of the population which use buses daily.

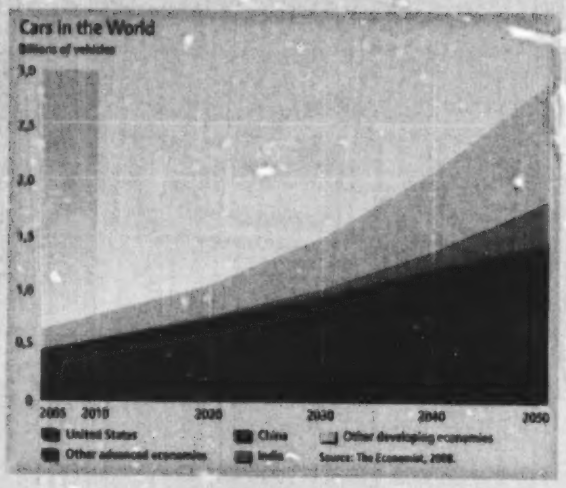
The administration, however, did not foresee the wrath of motorists, who were squeezed into a seven-metre-wide space, as against 10.5 metres they had previously enjoyed, as a result of the dedicated lanes — though they benefited from the removal of bus stops from the main road area and the creation of lay-bys. The system should also have imposed some order on Delhi's chaotic traffic, with cars switching lanes at random. But the benefits were lost on drivers who protested vigorously when the first few days of the system brought interminable traffic snarl-ups. And the media spurred them on.

Gautam Bhatia, a Delhi architect and an acerbic critic of unplanned growth, says, "The BRTS has faced the ire of Delhi's middle class. Connecting the city's posh southern colonies to the working district around Connaught Place, the experiment cut room for itself on the centre of one of the busiest arteries, leaving little space for private vehicles. Unused to the mismatch of road space between the private car and the public bus, many have raised their voices."

Chief Minister Sheila Dikshit, who had been the most ardent champion of the scheme, had no choice but to backtrack and water it down. "The government was never serious," complained one expert involved with the scheme. "They never understood the system. The media was also irresponsible in creating hysteria about the dislocation of traffic."

Meanwhile, Pune has introduced a semblance of a BRTS and is embarking on a second phase, but it isn't a full-fledged system like Delhi's, with a designated bus corridor and stops and disabled-friendly access to buses. Ahmedabad is to follow suit. But the expert added: "No city or government has understood the significance of public transport. You need to give it priority. Here, there are compromises all along the way, with cars being given priority, which amounts to a total waste of money."

At first glance, Delhi's BRTS compares unfavourably with its Metro, where the first 65-km-long phase opened in 2002 and its 128-km second route is due to be completed next year. It has been held up as an engineering marvel, caused relatively little dislocation during construction



colonies of south Delhi. It provides speedy travel in air-conditioned comfort, avoiding the chaos on the roads.

However, the Metro's 90 trains only carry 800,000 passengers a day, as against the 6.5 million who take the bus. And it is too expensive for casual and migrant labourers, who make up the bulk of the city's workers. The monorail and light rail system will carry still fewer passengers, when it is built. The BRTS costs a fraction of these capital-intensive projects. Indeed two surveys, by the Centre for Science & Environment (CSE) and the NDTV news channel, found that commuters, bus drivers and even some motorists thought that it had improved traffic. Someone has to bite the bullet as they did in Bogota where, initially, there were similar protests.

Prof Dinesh Mohan from IIT says: "People who criticise the BRTS and question the central bus lane will have to go back to basics". He points out that using the central lane for public transport is "a hundred-year-old concept" and that all the world's tramlines were put in the centre of roads and remain there. He adds "Only in cities where the trams were taken out under pressure from the car industry was public transport pushed to the side. It took a long time for people to realise that we should go back to the idea of keeping public transport in the middle."

In 2002, the Supreme Court — goaded by the late environmental journalist Anil Agarwal who founded the CSE — ruled that all public vehicles (buses, taxis and auto rickshaws) should switch to compressed natural gas (CNG) to rid Delhi of its pollution. It was the first city in the world to do this. But with over a thousand vehicles — a third using diesel — registered in the city every day, the sheer volume of traffic has negated this measure.

"We will have to take tough measures to control growing air pollution, and fast," says CSE Director Sunita Narain. "Otherwise Delhi will find itself choked in the toxic haze of the pre-CNG era."

and — uncharacteristically for India — is being built ahead of schedule. It started by choosing the right commuting routes for the capital's government officials and is only now connecting the better-off residential

LILLIAN BORRONE

Chair of the Board of the
Eno Transportation Foundation

DRIVING REFORM

Concerns about energy security and climate change have moved to the forefront of the public and political agenda, both in the United States and worldwide, and this has created the most significant opportunities for change in generations. Profound changes must occur in transport policy, in both developed and developing nations, to combat global climate change and localised air pollution, to reduce global dependence on oil, and to spur the global clean energy technology revolution now being embraced by leaders the world over.

The United States is moving to reduce its dependence on oil, but much more remains to be done. The Corporate Average Fuel Economy (CAFE) regulations, enacted in 1975 to improve the average fuel economy of automobiles in this country, were revised in 2007, to raise the national fuel economy standard to 35 miles per gallon (mpg) by 2020. This spring President Obama announced a goal to require passenger vehicle fleets to have an average of 35.5 mpg by 2016. America recognizes that its dependence on oil gives rise to economic, national security and environmental concerns. If these challenges are to be truly addressed, we must view them as integrated elements in a national sustainable transport policy, rather than as a series of discrete policies.

Legislators and the Obama Administration have an opportunity — and a challenge — to reform national transport policy since the federal surface transport programme is approaching a 30 September deadline for reauthorization. Some important reform efforts have already begun. For example, the Highways and Transit Subcommittee of the Transportation and Infrastructure (T&I) Committee of the US House of Representatives — under the leadership of Committee Chairman James Oberstar of Minnesota, Ranking Member John Mica, Subcommittee Chairman Peter DeFazio, and Ranking Member John Duncan, Jr. — has crafted legislation that includes a provision for setting greenhouse gas emission reduction targets, and other performance standards with which states and local governments can begin to measure their progress. This is a positive step towards creating a comprehensive national transport policy that integrates environmental and economic concerns, while holding funded projects accountable to specific performance objectives. However, even more robust and interdisciplinary transport reform efforts are needed to achieve energy security and environmental protection goals.

Many experts and users of the US transport system have joined in calling for a policy overhaul. As a member of the National Transportation Policy Project (NTPP) of the Bipartisan Policy Center in Washington, DC, I have been part of a group with a broad diversity of political views and professional experience seeking to find common ground for significant reform and to reach a bipartisan consensus that addresses the environmental and energy impacts of transport, among other concerns.

The results are both innovative and achievable. We call for a performance-driven policy approach, linking funding to a clear set of goals and holding recipients accountable for results. Current federal policy distributes funding and then tackles objectives: NTPP's recommended approach turns this on its head by first describing national values and defining a set of goal-oriented performance metrics, and only then allocating funding to projects that promise progress toward them. This bottom-up approach better empowers states and localities in the decision-making process: they are, after all, best able to determine how funding should be allocated to meet local needs while delivering national priorities. The NTPP promotes mode-neutral planning that does not advocate a specific modal split, but instead leaves it to state and local jurisdictions to — based on their own context and needs — how their transport projects can best meet federal goals.

NTPP advocates four other main goals — in addition to energy security and environmental protection — to govern federal transport policy: economic growth, national connectivity, metropolitan accessibility, and safety. It recommends that the US government distribute funding to programmes that advance them. Under this strategy, energy and climate priorities would be fully integrated in transport investment decisions.

Achieving these goals requires a methodology for measuring progress, and NTPP has developed eight performance metrics that together form a comprehensive method for this. These target oil dependence and climate change through two specific measures: petroleum consumption and CO_2 emissions. Including these, along with other performance metrics, ensures that progress toward any one goal is not measured in isolation, but as part of an integrated strategy of sustainable transport.

The NTPP's bipartisan approach and emphasis on clearly measurable goals can serve as the foundation for US transport policy reform. Transport and energy policy are inextricably linked, and the stage is set for reform. Citizens and elected officials are aware and concerned about both the climate and economic crises. Policymakers must be able to incorporate these issues into comprehensive national sustainable transport policy that integrates measures of accountability. The US will then be able to evaluate the impacts of its policy both on national goals and on its contribution to such global ones as reducing CO_2 emissions.

WANTED: EcoMobility

KONRAD OTTO-ZIMMERMANN AND VERÓNICA PÉREZ SUEIRO

Secretary General and Advocacy & PR Coordinator, Global Alliance for EcoMobility.

In an age of rapid mobility, people and goods are moving ever faster and further both between and within cities. But the era of the car is unsustainable. With almost 1 billion cars — a number that has doubled in the last decades — and the expansion of economic activity, more roads have fueled more vehicles, at even greater cost.

Road transport alone accounts for 4.7 gigatonnes of carbon dioxide, 17% of world energy-related emissions. Cars also contribute to congestion, air pollution, urban sprawl, road accidents, fragmented ecological habitats and health hazards: the list seems endless. Road transport can also lower economic productivity while adding to climate change. South Korea's economy, due to its traffic congestion, has lost an amount equivalent to around four per cent of the country's GDP.

"It is a new way of traveling in an era challenged by environmental blows."

Individually, motor vehicles with combustion engines affect us and the health of our families. Its dust and soot are far more damaging to human health than previously believed. The WHO estimates that over

0.8 million people die prematurely each year from outdoor urban fine particulate matter, to which road traffic contributes.

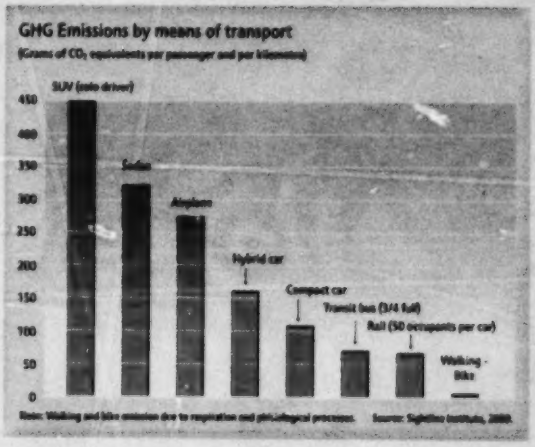
Many cities across the world are reacting, and refusing to follow the misguided footsteps of the developed world. As they grow, these cities rediscovering the merits of public transport, cycling and walking, and investing in them. Governmental and non-governmental organizations are addressing how roads are planned, financed, and built to ensure that road space is available to all users — including bicyclists and pedestrians. The United Nations Environment Programme and the FIA Foundation, along with other partners, have launched a global initiative called 'Share the Road: Minimum 10% Finance for Safety, Sustainability and Accessibility'.

Together these initiatives are altering the familiar experience of choking traffic, perilous roads and low vehicle speeds, proving that non-individual motorized forms of transport can be a real choice. Cities are creating accessible, safe, comfortable and affordable public transport systems and introducing new policies to reduce inner city traffic. According to the city, some 290,000 people now use Rio de Janeiro's 140 km of bicycle lanes every day, avoiding the emission of around 66,000 tones of CO_2 a year. Cape Town is considering plans to allow bicycle-commuters greater access to the inner city. Other popular initiatives include the dedicated Transmilenio bus lane in Bogota, London's Congestion Charge and the community bicycle programmes of Paris, Berlin, Barcelona and Changwon in Korea.

"Koprivnica...
...is leading the way. It has increased barriers to road traffic, constructed cycling tracks, created green spaces, and introduced community bicycles."

Cities are also harvesting the potential of integrating different transport forms, making riders passengers and passengers riders, providing many more choices to travelers and commuters, and benefiting employers and local governments as well. The Bicycling Empowerment Network, based in South Africa, imports bicycles from Europe, the Americas and Asia and distributes them to schools and teachers, farm and health-care workers, among others — a successful example of promoting cleaner, more affordable and more democratic forms of mobility.

So is the age of EcoMobility dawning? Despite progress, cities and communities have still many challenges. Traditional and polluting modes of transport are enshrined into the physical form of cities. The individual behavior of citizens and the status of the car have to be reappraised and local businesses, investors and community leaders need to become aware of the benefits of other forms of transport.



For the age of EcoMobility the physical infrastructures of cities will have be re-designed and retro-fitted for safer travel Community leaders will need to raise awareness of the health benefits and joyful aspects of using bicycles and walking in safe and secure environments.

Koprivnica, a city of some 31,000 people in northern Croatia, is leading the way. It has increased barriers to road traffic, constructed cycling tracks, created green spaces, and introduced community bicycles. Streets are being reclaimed for people by traffic-calming providing school traveling programs and work travel plans. It has held cycling festivals, open-air bicycle museums, and campaigns for cycling and walking. The city won the ICLEI Cities Enjoy Bicycles Award in 2006 and, two years later, received the European Mobility Week Award, supported by the European Commission, for its "comprehensive action plan" which "aims to make the city 100% accessible to all." It is continuing its work by improving active access and providing scenic cycling routes.

The Global Alliance for EcoMobility brings together a diversity of actors, with businesses, local governments, experts, and user associations playing important roles. Its mission has been embraced by such key actors as the United Nations Environment Programme (UNEP) and the United Nations Human Settlements Programme (UN-HABITAT); Shimano, Giant, Trek, Dahon and Accell Group from the bicycle industry; the European Cyclists Federation and the League of American Bicyclists. Operating internationally, it seeks to raise the profile of EcoMobility across disciplinary and territorial boundaries and advocates it at international policy forums and climate change negotiations.

The age of EcoMobility is under way. Urban planning — preventing endless cities through urban sprawl — is as much part of it as are local awareness, community leadership, employers' support, and new investment opportunities. It is a new way of traveling in an era challenged by environmental blows, yet — safe, secure, healthy, affordable, equitable, and informed by greater choice — its merits remain personal.

awards and events

World Bioenergy – Clean Vehicles & Fuels 2009

14-18 September 2009, Stockholm, Sweden

World Bioenergy – Clean Vehicles & Fuels 2009 is a special joint event combining two leading international events. It will be held in Stockholm, Sweden from 16-18 September and will combine the world's premier bioenergy gathering – World Bioenergy, with Clean Vehicles & Fuels – the leading European event for sustainable transport solutions. The event is focused on the practical implementation of bioenergy systems and sustainable transport solutions covering the whole chain; from policy making and procurement through to technology roll-out and systems evaluation.

http://www.worldbioenergy.com/

Global Climate Week will be held from 21-25 September 2009, and is planned to coincide with the United Nations Secretary-General's High-Level Summit on Climate Change on 22 September. This important week will be marked by synchronised activities in more than 100 cities to urge world leaders to seal a fair and effective climate agreement at the UN Conference on Climate Change in Copenhagen this December. Global Climate Week will unite efforts, whether individual or collective, calling for urgent action to combat climate change.

Find out how to get involved: http://www.

Clean Up the World

Clean Up the World is a community based environmental campaign held in partnership with UNEP that inspires and empowers individuals and communities from every corner of the globe to clean up, fix up and conserve their environment. To find out how you can help with Clean Up the World Weekend, 18-20 September, and to learn more visit

http://www.cleanuptheworld.org and find us on:

ITDP Institute for Transportation & Development Policy

The Institute for Transportation and Development Policy (ITDP) presented New York City with the Sustainable Transport Award in January 2009. New York City earned the award as a result of its PlaNYC 2030 initiative - a long-term city sustainability strategy. This annual award honours a city that uses innovative transportation strategies to enhance the sustainability and livability of its communities, while also reducing greenhouse gas and air pollution emissions. The city received accolades for transforming 49 acres of road space, traffic lanes and parking spaces into 255 kilometres of protected on-street bike lanes, as well as pedestrian areas and public plazas. Bike ridership increased by 35 per cent from the past year. The city planted more than 98,000 trees, implemented a select bus service and introduced car-free Saturdays. Honourable mentions went to the other award finalists, Beijing, Istanbul, Mexico City and Milan.

http://itdp.org/index.php/news_events/news_detail/new_york_city_wins_2009_sustainable_transport_award/

The Göteborg Award for Sustainable Development

The battle to create more sustainable cities and urban environments – environmentally and socially – is one of the most decisive factors facing the UN Climate Change Conference in Copenhagen in December. For this reason the Göteborg Award shares one million Swedish kronor between three people who have found new solutions to these challenges. This year's winners were announced in June, and included one of the people featured in this edition of Our Planet – Anna Tibaijuka.

http://www.goteborgsvaret.se/se/

Global Renewable Energy Forum

Co-organised by the Ministry of Energy of Mexico and the United Nations Industrial Development Organization (UNIDO), the Global Renewable Energy Forum will take place on 7-9 October 2009 in Leon, Mexico. The Global Forum will provide a platform for profiling leadership in regard to the promotion of renewable energy and highlight country initiatives that support the development of alternative energy systems.

http://www.grenewableenergy2009.org/

MICHELLE YEOH

It is good to have Michelle Yeoh on your side in a fight, for the former Miss Malaysia punches far above the weight of a stereotypical beauty queen. The star of the multiple Acadamy Award-winning film Crouching Tiger, Hidden Dragon — renowned for performing her own stunts — has been ranked as the greatest action heroine of all time. And she far exceeded the typical role of a Bond girl in Tomorrow Never Dies, that her co-star, Pierce Brosnan, called her "a female James Bond".

So it is thoroughly good news that she has taken up the battle for sustainable and safe transport, working with UNEP and the FIA Foundation in two important campaigns. The '50by50 Initiative' — in which they are joined by the International Energy Agency and the International Transport Forum — aims to reduce the fuel consumption per kilometre of the world's car fleet by 50 per cent by 2050. And 'Share the Road', with the International Road Assessment Programme, presses for ten per cent of road building investment to be devoted to sustainability and safety features, such as encouraging walking and cycling.

"Safe mobility should be seen as a basic human right, like access to clean drinking water", she told Our Planet. "It is a basic requirement to help millions improve their life chances and climb out of poverty."

Born Yeoh Choo-Kheng, to a prominent Chinese family in the old tin mining city of Ipoh, Malaysia, 47 years ago, she says she has witnessed how "people in developing countries have had to cope with dramatic changes to transport systems over the past twenty to thirty years", and adds: "It is still a process that is changing rapidly." The world's car fleet is expected to triple by 2050, and 80 per cent of that growth is forecast for developing countries.

This lends great urgency to the 50by50 initiative which aims at preventing the emission of two gigatons of carbon dioxide, roughly half the entire current emissions of the European Union. "With climate change such a vital issue, this is an effort to help policymakers and the car industry reduce the impact of the huge increase in the number of cars by improving fuel economy and reducing greenhouse gas emissions."

But, she adds, she is "most passionate" about road safety. "Every thirty seconds another child dies or is seriously injured. More than four in every five of those killed in road traffic crashes live in middle and low-income countries, and a rise of more than 80 per cent in road deaths in these countries by 2020 is predicted.

"We are facing a problem of epidemic proportions and — in addition to the tragic human cost — it is undermining our development efforts. The World Bank recently estimated that developing countries lose approximately $100 billion every year due to road crashes — roughly equal to the amount of all development aid."

Yeoh — who has been honoured as a Dato (roughly equivalent to a British knighthood) in Malaysia, and has been awarded as a Knight of the Legion of Honour in France — goes on: "What makes it even worse is that we have the means to stop this, to save lives, and yet nothing is being done. What stays with me from all my journeys is what I have seen of the terrible impact on people's lives when policymakers get it wrong, or ignore the problem. The road deaths epidemic could be tackled but it needs the world's attention to be focused on it. We need to start shouting."

She has also long been interested in environmental issues — she is an ambassador for the Save China's Tigers project — and sees road safety as "a symptom of the wider sustainability problem" adding: "The chances are that an unsafe road is also a road that is not encouraging non-car users, cyclists or pedestrians." So she is particularly enthusiastic about the 'Share the Road' campaign as an attempt to "ensure that the poor and the vulnerable who will never own a car still have a fair and safe stake in our transport system." G.L.

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